



Education

- **Polytechnique Montréal, Montréal, QC, Canada** (2017)
Ph.D. Student, Department of Chemical Engineering
Thesis: “Local Hydrodynamics of Fluidized Bed Reactors at high pressure and temperature”

- **Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran** (2008)
M.Sc. Degree, Department of Chemical Engineering
Thesis: “Retrofit for Debottlenecking of Heat Exchanger Networks Designed by Pinch Technology Method”

- **Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran** (2005)
B.Sc. Degree, Department of Chemical Engineering
Thesis: “Simulation of the Tehran’s Oil Refinery Atmospheric Distillation Tower by Pro/II”

Research Interests

- Reaction Engineering and Reactor Design
- Environmental Engineering, CO₂ solution, ...
- Simulation and Optimization of Processes
- Natural Gas and LPG treatment
- Water and wastewater treatment
- Transport Phenomena
- Separation and Purification Processes

Work Experience

- **NGL Fractionation, Propane and Butane Treatment Units** **Process Engineer** 2015-2017
South Pars Gas Complex (SPGC), Asaluyeh, Iran

- **Ethane Decarbonation and Drying Units** **Process Engineer** 2013-2015
South Pars Gas Complex (SPGC), Asaluyeh, Iran

- **Sulfur Recovery and Granulation Units** **Process Engineer** 2011-2013
South Pars Gas Complex (SPGC), Asaluyeh, Iran

Research Background

- Simulation and optimization using numerical methods
- Hydrodesulfurization of petroleum components using trickle-bed reactor
- Simulation of liquid-liquid extraction for LPG treatment
- Optimization of process key parameters in caustic regeneration unit for LPG treatment
- Design and simulation of packed columns of 4A molecular sieves for ethane drying
- Investigation on production of bio lubricant from hydrolysis lignin

Publications

- M. Fesanghary, E. Damangir, I. Soleimani , Design optimization of shell and tube heat exchangers using global sensitivity analysis and harmony search algorithm , Applied Thermal Engineering, Volume 29, Issues 5-6, April 2009, Pages 1026-103
- M. Mohammadnejad, H. Ale Ebrahim, I. Soleimani, Performance Study of Hydrodesulfurization for Various Sulfur Compounds with Different Catalysts by Simulation of Hydrotreating Trickle Bed Reactor, New Processes, Volume 10, Issues 51, 2015, Pages 201-219